FINANCIAL HISTORY OF OHIO FARMER OWNED ELEVATORS FOR THE PERIOD 1928-1938

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Foreword

Every fall beginning with 1929 the Department of Rural Economics has issued a bulletin on "The Financial Operations of the Farmer Owned Elevators of Ohio" for the fiscal year preceding its issuance. The bulletin issued for the year 1937-38 is the tenth of this series, and its issuance suggested the thought of presenting the summaries and trends for the ten year period. Hence this bulletin.

The data presented is from the ten bulletins referred to, or directly from the data on which those bulletins are based. It consists mainly of the following:

1. Totals and averages for the whole number of audit summaries secured by us in the respective years. This was 119 companies for the year 1928-29, and for every succeeding year 144 to 151 companies.

2. Data from 130 identical companies for a considerable period.

Data from several studies made each year by the sample method:

3. An analysis of the distribution of expense among the various expense items, based on data from about 40 to 50 companies each year.

4. A study of the average trading margins secured on the various grains and commodities handled, based each year on data from 35 to 45 companies.

5. The month by month trend of accounts receivable, based on the data from 17 companies.

In recognition of the fact that volume of business is an important factor in expense of operation and in net gains, we have always divided our companies into groups. Changing price levels have at times forced a change in the dividing points between the groups. Most of the time it has been about as follows, the first four groups containing companies that operate only one plant each:

Group I - those companies below $75,000 in volume.
Group II - companies with volumes between $75,000 and $150,000.
Group III - companies with volumes between $150,000 and $225,000.
Group IV - companies with volumes above $225,000.
Group V - all companies operating 2 or more plants each.

Introductory

The General Picture

The farmers of Ohio own some 180 companies operating in some 225 communities plants for the handling of grain and/or farm supplies. They are located almost entirely in the area north and west of a line from Cincinnati to Chillicothe to Newark to Cleveland. In the northwest and northern part of the state their business is dominantly grain, in central and east central Ohio they are largely supply handling agencies, with occasional shipments of wheat as the only cash grain crop.

The first thing to note is that together they constitute a sizable portion of the entire commercial grain and farm supply business of Ohio. These companies have some 35,000 stockholders and do business regularly with as many more farmers and occasionally with another equal number, so that they serve fully 100,000 Ohio farmers. The volume of business, fluctuating with crops and price levels, has in the past ten years varied between $15,000,000 and $40,000,000. To carry on this business they utilize assets of 8½ millions of dollars; their equity in these assets is 80% after all outstanding obligations are deducted.

These companies date back in the main to organization in the period 1915-20, with perhaps 10% of them older still, the earliest having been organized in 1904. The price crash of 1920-21 forced many companies out of business, and left most of the others with a heavy legacy of debt. The period of the 20's saw debts reduced, most of the deficits wiped out and sizable surpluses accumulated by most of the companies; in fact, the average value of the stock per $100 share for the 149 companies in our 1937-38 study was above $155.

Today while there are deficits still overhanging a few companies, it would be difficult to find a group of 180-200 companies in another line of business which went through the past ten years with a better record. In going over the whole list of companies, we find 15 which have discontinued business in the past ten years, 7 of them by sale to private parties, 8 by sale to another farmer elevator company or other farm organization. In the same period various ones of them have bought or built or otherwise opened up a total of 8 plants in communities not before served; furthermore, several companies have bought or erected buildings to add hardware, lumber, or machinery businesses to their ordinary grain and merchandising business.

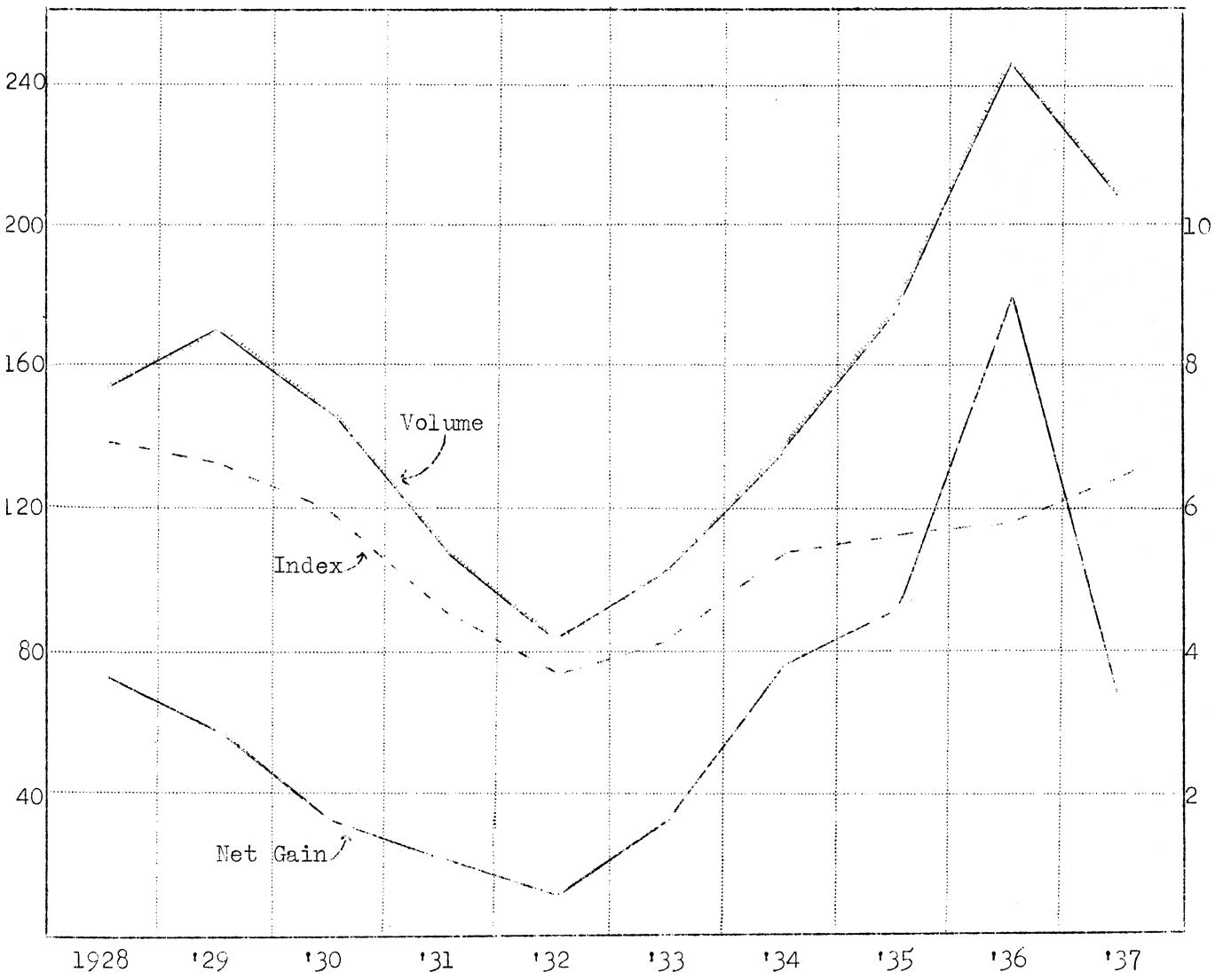
Chapter I

The Income of Farmer Elevators of Ohio, 1928-1938

Perhaps no question is more important regarding a cooperative than the extent to which it is serving its community. One measure of this is its volume of business. The outward measure of this is in dollars, but dollar volume is deceiving except in comparison with price levels. For several reasons no accurate price index can be made, but the crude index used in Figure I below pictures vividly the dependence of dollar volume on price.

Figure I

Volume of Business of Farmers' Elevators of Ohio 1928-38
Compared with Index of Prices



Average Sales per Company indicated in thousands of dollars at left.

Index, also indicated at left, is average of U.S.D.A. Grain index and index of commodities used in production.

Net Gain per company in thousands of dollars indicated at right.

One finds that the curve of volumes takes the same direction as the curve of indexes in every case except at the two ends of the curve. The curve of net gains follows the other two curves at every point where the volume and index move in the same direction.

This net gain for any year is the difference between gross income and total expense of that year. The remainder of this chapter will be given to the discussion of incomes.

As would be expected the gross income is mainly from margins on grains and farm supplies handled. During the first few years of the ten under survey 80% to 82½% of gross income came from margins; during the more recent years 86% to nearly 90% of income was from this source.

And what are the sources of this income other than trading margins? Over the ten year period not quite three fourths of the income other than trading margins has been from grinding and mixing of feeds; the remaining fourth is mainly from interest on investments and on notes and accounts receivable, recoveries of accounts charged off, trucking receipts, and dividends from central buying organizations. A considerable part of trucking receipts do not get into the audit as credits to trucking; customarily the delivery charge on coal is part of the selling price of the coal, often hauling goes with the purchase price of wheat, and in numerous individual deals as well. Far the larger number of these companies buy part of their farm supplies and sell part or all of their grain through either the Lima Equity Exchange Company or the Fostoria Grain and Supply Association, and the total stock and patronage dividends of these two organizations constitute a considerable sum.

The table below presents the approximate average income per company from grinding and from "miscellaneous income" for each of the ten fiscal years.

Table I

Average Income per Company from Grinding and Miscellaneous Income.

	Grinding	Miscellaneous Income		Grinding	Miscellaneous Income
1928-29	$2040	$624	1933-34	$1277	$544
1929-30	2187	667	1934-35	1150	634
1930-31	2267	699	1935-36	1534	681
1931-32	1929	671	1936-37	2018	832
1932-33	1604	721	1937-38	2171	892

In our earlier bulletins we called attention to the increase in grinding income; more of the grain was being fed up on the farm and more of it was being ground. Then came the traveling grinder which took part of the business and in some cases led to lower rates for grinding, at the same time that prices for livestock and livestock products were not such as to encourage the added expense of grinding. Hence we find receipts for grinding steadily declining from 1931 to 1935. Since that an upward trend is again in evidence.

We have raised the question whether rural electrification will result in an increasing number of grinders on farms, with a resulting effect on elevator grinding. No such result has yet shown itself.

Another fact of interest reveals itself as one examines the reports of the different years, and that is that volume of business is not the sole measure of usefulness of a company to its community. The percentages which grinding, trucking, and other miscellaneous income contribute to total income average for the ten year period 14.4% for those companies handling more than $225,000 of business yearly; for those between 75 and 150 thousand in volume, 18% and for the companies under $75,000 in volume, 21.3%. Thus, the "service" element is larger relatively in the smaller volume companies. See Table III below for a detailed illustration of this same fact.

The gradual increase in grinding and mixing of feeds noted above is not the only change that has come in this type of enterprise. Once, especially in western Ohio, the "elevator" was the place to sell grain, and was little else. Twine and fertilizer, connected with the grain business began to be handled; as grinding came in, feeds especially concentrates and commercial feeds were sold. The trade, both cooperative and private, soon recognized the numerous advantages of this. Not only did the farmer, there to sell grain, find it a convenience to get certain farm supplies while there, but the dealer found that the handling of supplies with his grain business, gave him a year round rather than a thoroughly seasonal volume of business; that it utilized his labor force and his space at seasons when they would otherwise be largely idle; that it furnished an income to carry overhead in periods which before were often "loss periods"; and that in bad crop years, i.e., when the crop was small or of a quality to involve heavy discounts, it was only the so called side lines that kept the enterprise "out of the red."

Hence, we have seen a gradual expansion of the farm supply lines. This involves not only more warehousing space, larger inventory, and trucks for delivery. It involves, if the manager is to attain success, a continuance of the study of the grains being bought; and also the development of ability as a salesman of his merchandise lines. To be a seller of feed, he must study feeds and feeding, and be able to figure out for his customer a ration suited to needs; to sell fertilizer successfully requires acquaintance with the soils of his community, a knowledge of the plant food needs of the different crops grown in his area, and of the probable contribution different types of fertilizer may make and so on through the whole list of his merchandise items.

It must be obvious to the reader that trading margins on these various commodities and grains will vary widely, not only year by year, but among the different items. Margins on livestock, e.g., generally are not far from 1% of dollar sales; on grains from 0 to 8%; on merchandise items generally 10% to 20% of sales.

In Table II below we present the Sales, Margins, and per cent of Gross Margin for 1937-38 in the major commodities handled by 38 companies on which we have these figures; the corresponding per cents of margin experienced in the three preceding years are shown in the remaining columns.

Table II

Commodity Sales and Trading Margin in Farmers' Elevators as shown by Data from 36 Companies, 1937-38

Commodity	No.	Sales	Margin	Per cent of Margin	Margins in preceding yrs. 1936-7	1935-6	1934-5
Wheat	35	$2,288,337	$ 7,531	.3	.38	4.2	5.7
Corn	29	1,739,155	91,729	5.3	6.6	7.0	8.9
Oats	27	402,473	26,268	6.5	10.6	9.4	11.6
Other Grains	10	63,854	7,404	11.6	7.7	5.2	26.3
All Grains		4,493,819	132,932	3.0	4.2	5.5	7.4
Soy Beans	5	26,425	1,720	6.5	7.9	8.9	
Hay & Straw	10	23,882	3,405	14.3	15.4	9.1	12.1
Livestock	5	585,911	6,110	1.0	1.0	2.0	1.0
Total Sales of Farm Products		5,130,037	144,167	2.8	3.8	5.2	
Feed and Flour	25	1,251,719	147,349	11.8	15.8	15.5	12.5
Seed	26	252,616	33,375	13.2	15.4	9.1	13.0
Fertilizer	22	273,038	38,477	14.1	12.4	12.5	12.5
Coal	27	534,290	107,767	20.2	17.0	19.0	18.8
Bldg. Material	4	41,023	9,157	22.3	18.9	21.8	25.5
Farm Machinery	7	252,530	39,996	15.9	16.6	19.2	22.9
Hardware	6	275,452	36,879	13.4	11.2	15.3	
Twine	12	14,267	1,213	8.5	6.7	10.1	11.6
Fence & Posts	14	45,536	7,944	17.4	15.7	12.3	12.1
Gas & Oil	10	108,296	15,695	14.5	14.0	14.4	16.5
Lumber	6	323,083	51,021	15.8	16.3	20.4	
Gen. Mdse.	33	1,057,948	158,935	15.0	13.4	12.5	15.0
Total Sales of Farm Supplies		4,429,798	647,808	14.6	14.9	14.7	15.0
Grand Total	36	9,559,835	791,975	8.3	7.7	8.8	

In examining this table one must remember that general merchandise is a sort of "catch all" in which are thrown all items not individually reported. E.g., of these 36 companies more than the 25 indicated in the table handled feed, more than 22 handled fertilizer and more than 12 handled twine; several of the companies handling principally grain throw all their other business under the head of "merchandise."

Even a cursory study of these figures calls out several facts:

1. The far greater regularity in the trading margin on supplies than on grains.

2. In grains the steady decline in margins, whereas those on merchandise items declined only slightly.

3. The greater margin on corn and oats than on wheat, partly because corn and oats are more largely sold back in the same community as feeds.

(Regarding wheat margins, no dealer meant to handle wheat on the absurdly low margin of .3% to .4% of sales. Of the 35 companies in this study and handling wheat, 22 made money, and 13 lost money, the difference of gains and losses being $7531. The losses were due to careless determination of moisture, failure to discount for damaged kernels, a too highly competitive market in certain areas in addition to the general problems of marketing wheat in a wobbly market. Part of the overbidding on wheat was due to anxiety to collect an account.)

In most of this bulletin we shall have occasion to refer to the various "Groups" of companies; it seems proper therefore at this point to insert Table III taken from our most recent bulletin, that the reader may have before him the approximate relative volumes of the different groups. It might be well to note again the grouping as pictured at the close of the Foreword.

Table III

Sources of Income of Ohio Elevator Companies 1937-38
in Averages per Company for each Group

Group	Sales per Company	Trading Margin	Grinding Income	Other Income	Total Income	What % of Total Income is from Trading Margins
I	$ 52,107	$ 4,814	$1,070	$ 641	$ 6,525	73.8
II	114,498	9,521	1,477	610	11,608	82.0
III	185,808	14,384	2,186	675	17,245	83.4
IV	325,149	23,799	2,992	1,311	28,102	84.7
V	371,594	30,376	3,185	1,417	34,978	86.8
Av.	207,989	16,471	2,171	892	19,534	84.3

Note that the large percentage of income received by the Group I companies from grinding and other income indicates that the value of a company to its community is measured in service as well as volume.

Another view of the gross margins realized in the farmer elevators of Ohio is seen in Table IV below. If goods selling at $100,000 had a cost of $90,000, the $10,000 of gross trading profit is 10% of the sales volume. In Table IV we present for each of the 10 years in our study the trading margin secured by each volume group. To make it easy to relate these margin ratios to yearly volume, at the head of each column we have put the average sales volume per company for that year, expressed in thousands of dollars.

Table IV

Per cent of Trading Margin Received by Ohio Farmer Elevators - In the Years 1928-29 to 1937-38 Inclusive

Year Ending	'29	'30	'31	'32	'33	'34	'35	'36	'37	'38
Volume	147	170	146	108	83	102	138	176	247	208
Group I	9.5	9.4	10.6	10.4	12.4	12.4	12.4	10.9	11.4	9.2
Group II	9.7	8.5	9.0	10.6	11.6	11.2	10.7	9.5	10.3	8.3
Group III	9.1	7.7	8.1	9.0	11.0	10.2	9.8	8.2	9.3	7.7
Group IV	7.2	6.4	6.2	9.1	10.5	10.1	8.8	8.0	7.5	7.3
Group V	8.2	7.8	7.5	9.3	10.2	9.9	9.3	8.7	8.6	8.2
Average	8.7	7.7	8.2	9.6	11.2	10.6	9.9	8.7	8.6	7.9

In examining this table we find two ways in which volume and margins have a correlation - an inverse correlation in both cases:

1. In Groups I to IV inclusive containing the companies which operate only one plant each, we find only 3 exceptions in 30 cases to the rule that a larger volume group operates on a lower margin than a smaller volume group.

2. As volumes declined 1929 to 1932, the margins taken steadily advanced; then as volumes increased in the next four years margins steadily declined - in fact, kept on declining in 1937-38, though volume fell off. (Largely due in this latter case to the handling of wheat on a negligible margin.)

The necessity of a larger per cent of margin as volume declines will be shown in the next chapter where the expenses involved in elevator operation are discussed.

Chapter II

A Ten Year History of Elevator Expense

One of the major objectives in forming a cooperative is the expectation that the services to be secured cooperatively can be secured at less expense than that at which the private trade was furnishing the services. To accomplish this requires more than a mere general "effort to keep down expense"; it requires an analysis of expense - expense in comparison with other years - expense in relation to volume - distribution of the dollar of expense among the various expense items - why are certain items steadily increasing or why high in particular years. It has been our aim each year to present an analysis of expense of the various volume groups and its relation to income so that any manager and board of directors can compare their company's record with that of the average of its volume group.

Before we take up the analysis of expense, let us look at the general picture of the income and expense as worked out for each of the ten years. The reader should remember that only 119 companies are represented in the 1928-29 data; each of the succeeding 9 years presents data from 144 to 151 companies, and while fully 130 companies appear throughout the 9 years, yet in no two successive years are exactly the same companies included. This general picture appears in Table V below.

Table V

Income and Expense of Ohio Farmer Elevators, 1928-1938 in averages per company

	Volume	Trading Margin	Gross Income	Operating Expense	Total Expense	Net Gain
1928-29	$155,785	$13,557	$16,221	$ 8,817	$12,572	$3,649
1929-30	170,226	13,079	15,932	10,557	12,941	2,991
1930-31	146,199	11,900	14,866	10,832	13,174	1,692
1931-32	108,347	10,380	12,980	9,683	11,837	1,143
1932-33	83,554	9,334	11,643	8,785	11,016	627
1933-34	102,284	10,088	12,709	8,451	11,011	1,698
1934-35	138,360	13,782	15,566	9,156	11,691	3,875
1935-36	175,759	15,231	17,446	10,572	12,838	4,608
1936-37	247,439	21,286	24,136	12,648	15,123	9,013
1937-38	207,989	16,470	19,534	13,757	16,127	3,407

A glance at the table reveals that in three years 1931-1934 trading margins alone were insufficient to cover total expense. The striking fact is however the relative constancy of expense as compared with the greater flexibility of income. The largest total expense, $16,127, is 46½% greater than the lowest expense of $11,011; the largest gross income, $24,136, exceeds the smallest by 108%. The greatest variation in expense in any two successive years is $15,123 compared with $12,838, an increase of 18%; gross income that year increased by 38%.

The reader will note that here we are comparing expenses in dollars. So far as dollar volume is dependent on price, a change in dollar volume leaves the tonnage and the number of items to be handled unchanged, which means that the labor and power needed are as great for the smaller dollar volume as for the larger. Again several of the expense items, such as taxes, insurance, interest on outstanding obligations, repairs, are affected not at all or to only a minor degree by the changes arising from price. Depreciation is not lessened though it is true that directors sometimes set aside less for depreciation in bad years than in good. But as appears in a later table, to say that labor, power, tax, insurance, interest, depreciation, are little affected when volume rises or falls as a result of changes in price of things handled, is to say that 80% of expense is little affected. It is not however true to say that labor expense is not affected. The amount of labor needed changes little, but when managements are confronted with low income and fear of loss, they do often cut wages.

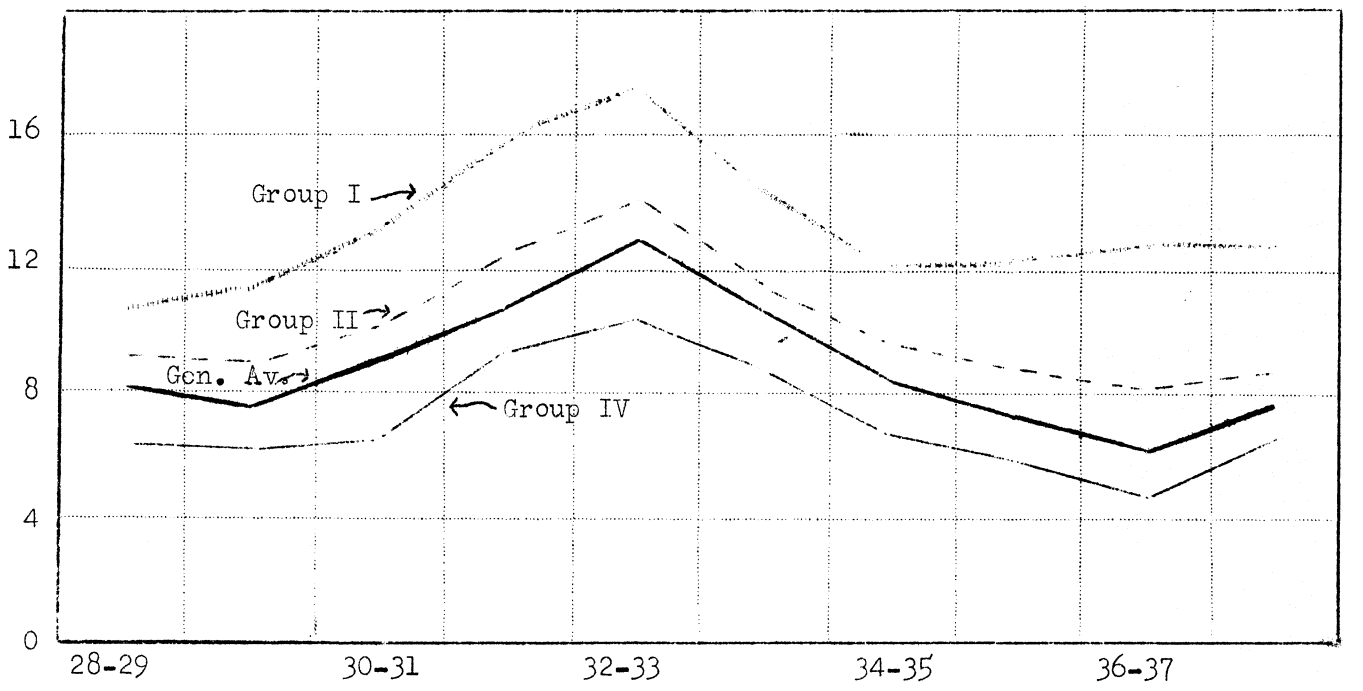
Whenever volume decline is due to small crops of grain and seed, or to failure of farmers to buy feeds or fertilizers when livestock, dairy, poultry, or crop prices are too low to encourage production expense, or when low farm income discourages the purchase of fence, paint, and machinery, the decline in dollar volume in such cases is in part a decline in tonnage, and actually requires less labor and power and possibly less supplies and repairs. Even in these cases however the change in expense is less than the change in volume.

In the preceding three paragraphs we have been discussing total expense per company as measured in dollars. Here we found a curve of relatively limited fluctuation. When we examine expense ratios, i.e., the percentage which expense is of volume, we find just the opposite. The very fact that a company's expenses of operation change so slowly one year with another, carries inherent in it the further fact that when volume changes rather abruptly, a near constant expense bears a very much changed ratio to volume. E.g., the average volume per company handled in 1929-30 was $170,226 and was handled at a total expense of $12,941, which is 7.6% of sales. Three years later falling price level and other influences had cut dollar sales to $83,554 per company. Every effort possible to cut expense had reduced it only to $11,016, which is slightly above 13% of the year's volume of sales.

In examining Figure II the reader should remember that Group I includes those companies handling a volume of less than $75,000 during the year; Group II those companies whose yearly volume falls between 75 and 150 thousand; Group IV those with volumes in excess of $225,000. The heavy line represents the general average of all companies in the study of the respective years. Groups III and V are omitted because their expense ratios are quite close to the General Average and the curves would unnecessarily complicate the figure.

Figure II

Ratios of Expense per Dollar of Sales for the Various Volume Groups
Ohio Farmers' Elevators, 1928-38.



This figure brings out vividly the expense problem of the small volume company. Back in 1928-29 when its expense ratio was lowest, this group had an average expense of 10.7¢ per dollar of sales while the Group IV companies averaged 6.1¢. In 1937-38 when companies generally are performing a much wider range of services than ten years earlier, Group I averaged almost twice the expense per dollar of sales experienced by Group IV - a handicap almost impossible to overcome if the big neighbor is near by.

A concrete illustration will make this problem more vivid. Suppose that a trading center has a yearly volume of $350,000 of business of the types handled by country elevators. The expense in handling this volume as shown by the data from our 149 companies in 1937-38 would have been approximately as follows:

If handled through	6 companies	- $44,000
	3 companies	- 31,000
	2 companies	- 27,500
	1 company	- 23,000

The substitution of one manager at - say - $3000 - in place of 6 at $1200 to $1500 would save about $5000; the business handled through one plant would require possibly 5 fewer helpers than when handled in six plants; one big plant would have not over half as much tied up in inventory and plant as would the six smaller ones; savings in depreciation, in insurance, taxes, repairs, would be roughly proportional to the savings in labor - which items would account for most of the thousands saved. (This problem of the advantages of the large company appears again in Chapter IV.)

Each year we have presented a break up of expense for the different groups in tables similar to VI and VII below. Table VI is the analysis for the different groups for 1928-29 and Table VII for 1937-38, respectively the first and last of our ten studies.

Table VI

Major Expense Items - Farmers' Elevator Companies - 1928-29
Averages for 119 Companies

Group	No. of Companies	Average Volume	Interest Paid	Deprec. Reserve	Bad Debt Reserve	Oper. Expense	Total Expense
I	27	$ 56,207	$503	$ 609	$155	$ 4,794	$ 6,061
II	37	113,037	487	1,143	275	8,509	10,414
III	28	183,563	435	1,859	496	12,321	15,111
IV	13	274,611	719	1,804	440	13,890	16,853
V	14	294,911	872	2,812	664	17,641	21,989
	119	155,785	547	1,467	360	10,222	12,596

Table VII

Major Expense Items - Farmers' Elevator Companies 1937-38
Averages of 149 Companies

Group	No. of Companies	Average Volume	Interest Paid	Deprec. Reserve	Bad Debt Reserve	Oper. Expense	Total Expense
I	12	$ 52,107	$210	$ 606	$ 91	$ 5,666	$ 6,573
II	51	114,498	261	1,095	283	8,498	10,137
III	34	185,808	212	1,545	252	12,418	14,427
IV	24	325,149	211	1,823	552	18,455	21,041
V	28	371,594	484	3,038	1,058	24,401	28,981
	149	207,989	280	1,640	450	13,757	16,127

In comparing Tables VI and VII, one discovers that in every group interest charges have been reduced materially; e.g., about 60% in Group I, 70% in Group IV, and by nearly 50% for the average of the whole number of companies.

In Table VIII we analyze expense from another viewpoint. It indicates for each of the ten years the share which each major item of expense contributes to total expense for the year. The figures may be read as "per cents of total expense" or as "cents in each dollar of expense."

An examination of Table VIII calls out these comments:

1. The changes in per cents for different items are certainly partly due to the fact that samples for different years are not always made up of the same companies.

2. When volume fell off in the early 30's, and expense had to be cut, labor was the item most open to attack. Hence, the rapid decline from 50¢ to 43½¢ as labor's share of the expense dollar; as times grew better this was restored.

3. Taxes were a relatively constant percentage, until the social security taxes plus heavy income taxes on the big profits of the year 1936-37 boosted taxes to a new high.

4. Auditing service, while not a large, is an increasing factor as more reports are called for and more taxes imposed.

5. Trucking service is a rapidly increasing item.

6. Interest bills are declining as notes payable are paid off.

7. Depreciation was relatively constant for the first seven years of our study, but is declining due to the facts that many plants have been already depreciated to nearly rock bottom values and that income tax examiners are increasingly strict in determining deductions for this item.

8. Bad Debt allowances were very high in the mid '30's as old accounts were written off; newer accounts made less trouble, hence the decline in ratio. (One wonders if the increase of 16% in accounts receivable in 1937-38 over the year before does not promise another rise in this item ere long.)

Table VIII *

Number of Cents Contributed to each Dollar of Total Expense
by Each Major Expense Item
Farmers Elevators of Ohio, 1928-1938

Item	Year Ending '29	'30	'31	'32	'33	'34	'35	'36	'37	'38
Labor	50.0	50.3	49.4	48.1	46.9	43.5	45.4	48.1	50.7	51.0
Power	8.6	7.9	9.4	9.1	9.2	8.9	7.7	8.4	8.6	7.2
Insurance	4.0	4.5	5.0	5.2	4.7	4.9	4.8	4.5	4.7	4.3
Taxes	4.9	5.4	4.7	4.0	4.8	4.8	4.1	4.4	3.2	5.6
Supp. & Rep.	2.8	3.7	4.1	3.8	5.0	4.0	3.6	5.0	5.6	4.4
Advertising	.8	1.0	1.2	1.2	.7	1.3	1.3	1.0	1.4	1.5
Post. & Tel.	.9	1.1	1.3	1.0	1.0	1.1	1.1	.9	1.0	1.0
Aud. & Legal	.8	.5	.4	.4	.7	1.1	1.3	1.3	1.0	1.1
Truck	2.6	3.0	2.7	2.8	3.2	4.2	4.4	4.3	5.9	5.8
Off. Supplies	2.0					2.3	1.7	1.7	1.9	1.9
Rent								.5	.6	.5
Interest	4.3	4.6	5.5	4.3	4.0	3.4	2.8	2.5	1.5	1.6
Depreciation	11.6	11.7	10.1	11.7	12.3	11.4	11.8	10.5	9.5	9.0
Bad Debts	2.9	2.5	2.2	3.6	4.3	8.4	7.7	4.4	3.1	2.6
Miscellaneous	3.8	3.8	4.0	4.8	3.2	.7	2.3	2.5	1.3	2.5

* The reader should recognize that the figures in Tables VI and VII are averages of the whole number of companies in our study for the respective years; the data in Table VIII for each year are from 35 to 50 companies on which we had sufficiently complete data. Hence the percentages for Table VIII may vary slightly from those in VI and VII.

Chapter III

Changes in General Financial Status

The stockholder may be one of those who, as he approaches the annual meeting, asks, What dividend are they going to pay? If he thinks a little more deeply, he may ask first, What did they earn this year? and second, What is the condition of the company now?

In Table IX the changes in the status of the groups as a whole are shown.

Table IX

Year	No. * Companies	No. having Surpluses	Per cent with Surplus	Average Surplus per Co.	Book Value of Stock per $100 Share
1928-29	119	102	86%	$10,014	$138.60
1929-30	144	115	80%	10,027	138.21
1930-31	151	122	81%	9,933	136.71
1931-32	147	113	77%	10,071	138.11
1932-33	146	108	74%	8,629	132.07
1933-34	149	110	74%	8,574	132.42
1934-35	147	123	83%	11,160	142.66
1935-36	150	127	85%	12,635	146.53
1936-37	150	138	92%	17,026	164.33
1937-38	149	134	89%	15,882	157.14

* The number of companies whose figures we had for the respective years.

The reader may remember that in our introductory pages reference was made to the price crash of 1920-21, the resulting bankruptcies, also the resulting debts and deficits for many more which managed to stave off bankruptcy. The period of the mid 20's went largely to paying debts and wiping out deficits.

We find from this table that in 1929 (assuming that our 119 companies constitute a fair sample) 86% of the companies had more or less surplus. Our 1929-30 data contain 25 more companies; the depression of the early 30's was already under way, and the percentage having surpluses was on the way down to an ultimate low of 74%, whence it steadily rose to 92%. The decline in average value of stock from $164.33 in 1936-37 per $100 of stock to $157.14 is due principally to three things:

1. Several companies issued stock to take up part of the surplus as they changed over to a cooperative basis; others issued stock in payment of patronage dividends.

2. Several companies paid out in stock and patronage dividends from the 1936-37 profits more than they made in net profit in 1937-38 - a perfectly normal situation to a real cooperative in an average year following an exceptionally good year such as 1936-37.

3. Some companies suffered severe losses on wheat. The fact that net worth of the 149 companies is practically unchanged (more stock and less surplus) indicates that No. 1 above is the principal factor.

A word about the share value of the stock. In the early days of organization most companies issued $100 shares, a considerable number, $50 shares, and a few, $25 shares. The recent moves to get on a thoroughly cooperative basis and to encourage membership of all regular patrons have led many companies to change their capitalization to $25 shares or even $10 shares. This was done by issuing 4 shares of $25 or 10 shares of $10 for each $100 share; in fact if the company had a large surplus, five $25 shares or 12 to 15 ten dollar shares might be exchanged for a $100 share - the point referred to in No. 1 above. The varying par value of shares however forces us to place comparative values on one basis and we have continued the $100 basis which was the customary par value of shares when we began this series of studies.

To say that a company has or a group of companies have surplus is to say that they own resources in excess of both liabilities and capital stock. Hence, another question of interest is, What resources do they own and what liabilities are outstanding against them? Table X below answers both these questions for the past two years for the 149 companies whose data we have.

Table X

Resources and Liabilities of 149 Ohio Farmers' Elevators
For the Years 1936-37 and 1937-38

Resources			Liabilities		
	1936-37	1937-38		1936-37	1937-38
Cash and Bank	$1,098,069	$ 802,763	Notes Payable	$ 646,427	$ 815,234
Receivables	1,559,858	1,943,671	Dividends Payable	279,722	155,045
Inventory	2,081,506	1,844,988	Other Payables	539,139	528,860
Net Plant	3,032,344	3,246,196	Capital Stock	3,960,655	4,142,622
Investments	144,246	109,962	Surplus	2,551,663	2,366,451
Other Assets	61,583	60,632			
	7,977,606	8,008,212		7,977,606	8,008,212

Note that net worth made up of Capital Stock plus Surplus is almost exactly the same at the end of the two years - $6,509,073 as compared with $6,512,318 a year earlier.

In this and related tables, "Cash" includes till money, bank balance, and savings accounts; "Receivables" includes customer and grain accounts receivable and notes receivable; "Inventory" includes grain and merchandise on hand and grain in transit, all inventoried at cost or market, whichever is lower; "Net Plant" is the total charges to plant at cost less depreciation reserves; "Investments" includes mainly stock held in either of the two central sales organizations, bank stock owned, and any other securities owned.

Among liabilities, "Notes Payable" includes all notes payable, secured or unsecured. "Dividends Payable" is total dividends declared but unpaid; many companies pay the dividend on the stock before the end of the year, and more companies still do not declare the patronage dividend until after the audit, so that neither of these two groups of dividends is included in our "Dividends Payable." "Other Payables" includes mainly open accounts payable, expense accrued but unpaid, and reserves set up to meet income or other taxes.

These three include all "Outside claims" on the resources of the company; the"Net Worth"of the company is the balance remaining after the sum of these three is deducted from total resources. If this "Net Worth" is greater than the amount of capital stock outstanding, the excess is called "Surplus."

To many persons this word "Surplus" is confusing. Stockholders sometimes seem to think surplus is something which the company does not really need and which could as well be paid to them in dividends; others regard it as cash put away for some undefined reason. It is neither. To say that a company has a surplus is merely to say that after deducting the debts of the company from the total appraised value of its assets, the remainder (called Net Worth) is greater than the amount of capital stock outstanding. E.g., Company X has total assets of $40,000. It owes $10,000 in Notes Payable and another $5,000 in current debts. Its Net Worth then is $40,000 less the $15,000 of debts, or $25,000. The company has $20,000 of capital stock outstanding. The Net Worth is larger than the amount of capital stock outstanding, so the company has a surplus - a surplus of $5,000. Whether the $40,000 of assets includes $10,000 in cash or no cash at all has no bearing on the reality of the $5,000 in surplus. In fact, two or three companies represented in our data had surpluses even though their bank accounts were overdrawn.

By reverse, if the Net Worth is less than the Capital Stock, the company is said to have a Deficit; e.g., if Company X above had assets and debts as indicated, but stock outstanding were $30,000 instead of as given, the company would have a deficit of $5,000 - a deficit even though all the assets had been converted into $40,000 of cash for after paying its debts the company would have $25,000 left with which to retire $30,000 of stock, so could pay less than 84¢ on the dollar of stock.

In presenting the Balance Sheet above what is included in each of the items was indicated. Before leaving the subject of resources and liabilities certain other comments seem to be in order.

For four years past the average cash per company at the end of the year was above $5000 and at the same time many of the companies had considerable amounts of Notes Payable outstanding on which interest must be paid. Many a stockholder has said to himself: "If I had $5000 on hand and owed on a lot of notes, I'd apply most of the $5000 to reducing the indebtedness on which I was paying interest." Most boards of directors have followed that policy - in some cases even to a serious reduction of working capital. What the stockholder who reasons as above does not reqlize is that a volume of $208,000 (the average volume of the 149 companies for 1937-38) is $4000 per week. Surely funds to cover the purchases and expenses of 10 days is not too large balance to carry. A reasonable cash balance is not only a help to credit standing; sufficient cash to discount one's bills pays big interest on the money. E.g., one company whose audit showed what had been saved by taking cash discounts, had used a cash balance of some $7000 as a means of saving $800 in discounts, or about 11½% on the $7000, to say nothing of the better terms sometimes secured by paying cash.

Inventories have averaged between $7000 and $14000 per company, with a generally rising trend over the past five years, except for the last year. This rise in inventories is due primarily to two things:

The period from 1932 to 1936 was in general one of rising prices so that part of the rise is merely the larger dollar value of the same inventory as prices rose.

The more permanent factor is the gradual expansion of merchandise lines with the added lines of paint, fence, gasoline and oils in many places, and occasionally hardware, lumber, and/or machinery.

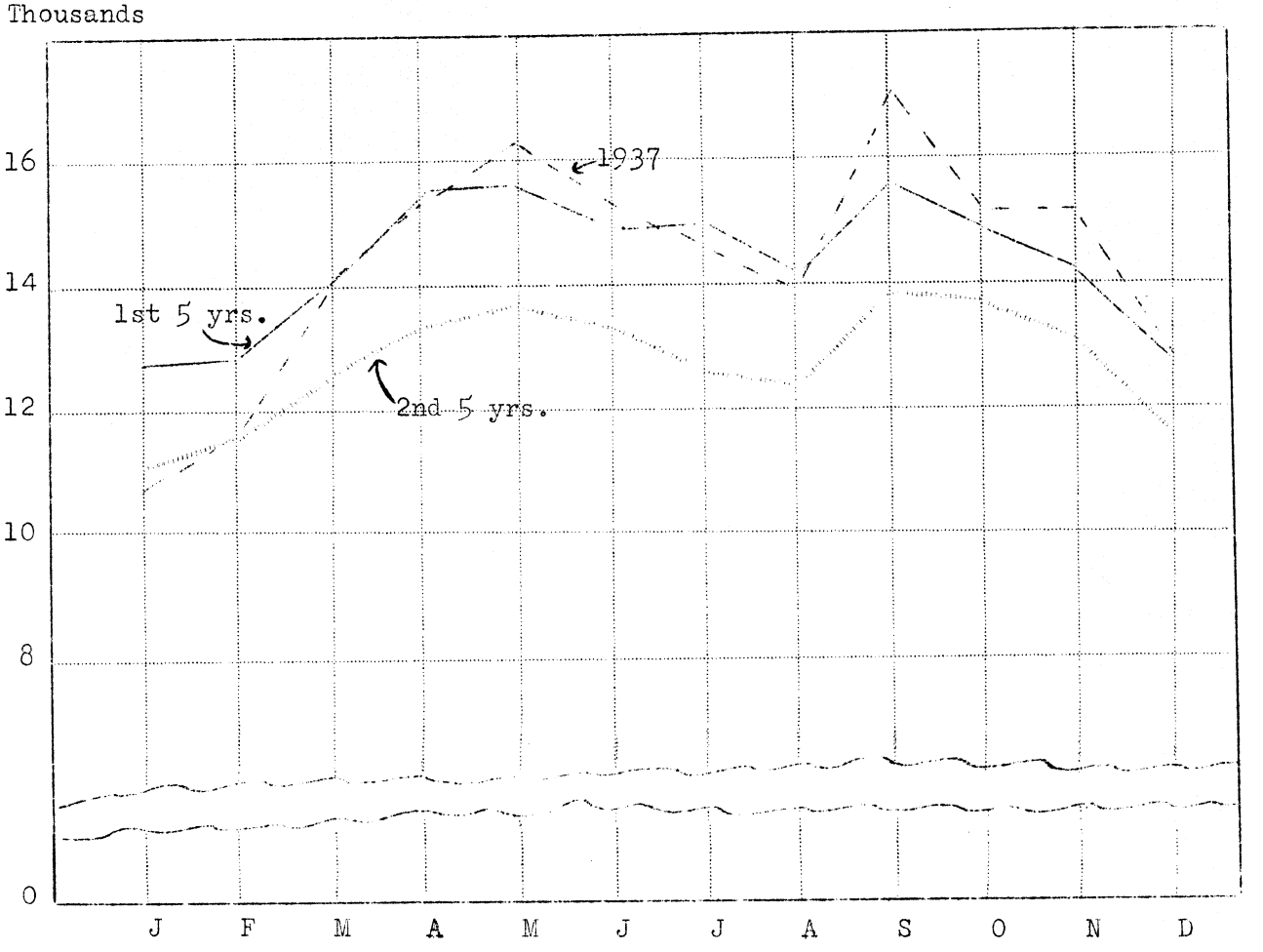
The five year change in average Net Plant Value from not quite $19,000 to not quite $21,000 is far from a complete picture of what happened. The writer happens to know of five companies building a new elevator each and several more overhauling the old one at large expense; several companies built or bought new warehouses for machinery, for lumber, for hardware, or for general purposes; and probably every company made considerable expenditures more than once in the period for added office space or new scales or new grinders or mixers or cleaners or coal unloaders or for motorizing the whole plant. But Net Plant Value as we use the term is after Depreciation. One group of 130 companies wrote off $955,460 of depreciation in this five year period, or nearly $7350 per company. Putting the two sets of figures together we find that these 130 companies spent in the five years more than $9000 per company in plant improvement and new equipment at the same time writing off all but $2000 of the addition in reserves for depreciation.

The only remaining item of importance on the asset side of the ledger is Receivables (here including notes as well as accounts). It is however an item of decided importance, for at the end of the 1937-38 fiscal year receivables constituted 24.2% of the total resources of the 149 companies. Its importance derives too not only

Figure III

Accounts Receivable Balances of 17 Ohio Farmers Elevators

(Month by Month Balances, Averaged for 1928-32 and 1933-37)



We find a peak every year in the spring (April or May) with a decline to and including August; September fertilizer and seed sales bring the high peak of the year followed by a decline running to the next January or February. The second 5-year period shows a reduction of some $2000 as compared with the first 5-year period, but 1937 loses it all, going back to the first 5-year average and more.

This topic should not be dismissed without a reference to the costs inherent in a credit business. Table VII presents $450 as the average reserve per company set up for incollectible accounts. Assuming $100 of collections of accounts written off, we get $350 as the net charge off. Of the $13,045 of receivables, fully $12,000 are open accounts.

We suggest the following as a method for any manager to get a fair approximation of what his accounts are costing the company:

Possibly one third of bookkeeper's wages	$300
Postage and stationery for - say - 2400 statements per year	75
Yearly write off	350
Interest on $12,000 at 5%	600
Collection and legal costs	---
Manager's time and travel	---
	$1325

This $1325 is more than 11% of average amount outstanding. It would be well worth while if an hour of any board's time be taken to figure this out for their own company.

Among liabilities, Notes Payable call for the most extended comment. In 1929 we found that all the companies (59) on which we had comparative data had in the preceding five years cut their Notes Payable from $13,100 per company to $7600. Three years later we found a further reduction of about 14% during the first three depression years.

More recently we find in the three years ending 1937-38, a group of 141 identical companies showing the following average per company: $3872, $3963, and $4990 - and this in spite of the fact that 60 companies had no notes payable outstanding.

The mere totals of Notes Payable however fail to tell the story. Huge expenditures for plant and inventory have been made during all the years and especially recently. We found above e.g., that 130 companies had on the average paid out in five years in excess of $9000 each for plant and equipment - a total of $1,170,000. At the same time inventory had grown from $965,000 to $1,550,000 - an increase of $585,000. Thus funds had to be found during the five years for $1,755,000 for these two items, and ofttimes had to be secured by borrowing on the company's note.

To illustrate from the records of a particular company, their record of Notes Payable of $13,000 in 1924, $16,500 in 1928, $8000 in 1932, $17,500 in 1935, and $38,800 in 1937 does not look so good on the surface. But they erected a building and put in a full line of hardware, which caused the boost in Notes Payable in 1928; they had them half paid off in 1932, but soon after bought a plant at a nearby town which caused another boost. More recently they bought and restocked the lumberyard in their town, and bought a third elevator in a neighboring town. The

$13,000 debt of 1924 was against one elevator plant and related assets; this debt of $38,800 is against $168,000 of assets representing an elevator, a lumberyard and a hardware store with full line of electrical household equipment and farm machinery - all in their home town, and elevators in two neighboring towns. This $168,000 of assets too counts plant and equipment at $68,000 after depreciation reserves of $38,000. Expanding too rapidly? - Maybe, but they made a net profit of more than $15,000 last year.

And now we present in Table XI below a Balance Sheet which may be taken as typical of the movement as a whole. The final items in both assets and liabilities are the averages for the respective items for the 149 companies in our 1937-38 study. The Depreciation and Bad Debt reserves we do not have for all of the 149, so are taking these two figures from the data on 130 companies of the 149, assuming that these averages would approximate closely those of the remaining 19.

Table XI

Balance Sheet of an "Average" Ohio Farmer Elevator Company, End of the Fiscal Year, 1937-38

Assets			Liabilities		
Cash		$ 5,388	Notes Payable	$ 5,471	
Receivables	$14,941		Dividends Payable	1,041	
Reserve	1,896	13,045	Income Tax Reserve	236	
Inventory		12,382	Other Payables	3,314	
Plant	33,640		Total Outside Obligations		$10,062
Reserve	11,853	21,787	Capital Stock	27,803	
Investments		738	Surplus	15,882	
Other Assets		407	Net Worth		43,685
Total Assets		53,747	Liabilities and Net Worth		53,747

For a final picture we present the changes in capital stock and net worth per company over the ten year period. (Remember that not exactly, but nearly the same companies appear in two successive years.)

Year	Capital Stock	Net Worth	Year	Capital Stock	Net Worth
1928-29	$25,914	$35,928	1933-34	$26,447	$35,021
1929-30	26,268	36,295	1934-35	26,162	37,322
1930-31	27,055	36,988	1935-36	26,908	39,545
1931-32	26,426	36,497	1936-37	26,467	43,493
1932-33	26,900	35,529	1937-38	27,803	43,685

Chapter IV.

Thus far this bulletin has been mainly a presentation and analysis of the data we have on the financial operations of the farmer owned elevators and exchanges of Ohio. We have reserved for a concluding chapter certain comments which seem to us pertinent regarding some more general aspects of the elevator situation. The reader as he approaches this chapter is entitled to a word of caution. While we offer supporting data for several of the comments made, nevertheless it will be observed that what we say here is to a considerable degree in the nature of general observations. While they are the outgrowth of a dozen or more years of attendance at group meetings of managers and directors, annual meetings of stockholders, and conferences with auditors and managers, they must yet be colored more or less by the writer's personal views, and should be read with that realization in mind.

We have assembled these comments around several specific topics.

The Small Volume Company

Twelve companies of the 149 in the 1937-38 study had volumes below $75,000 each, and with an average of $52,107 per company. Of these 12 companies 6 made a total of $5,135 in net gains, while 6 suffered losses of $5,720 - a net loss of $585 for the group. Twice before in the ten years of our studies the companies in this group have suffered a net loss for the group.

Constituting 19.3% of the 1450 individual reports received by us in the ten years, this group has furnished 40.8% of the companies showing losses in various years. After deducting the losses of three years from the gains for the remaining seven, we find the average net gain per company of this group to be slightly under $300. Thus, it is evident that this group has unusual difficulty as compared with those of larger volume. Why? For several reasons.

1. Comparing this group with Group III, we find this group had sales per company of $52,107 in 1937-38 as compared with $185,000 for Group III. The small volume companies got a turnover of inventory 9 times a year as compared with 18.3 for those in Group III. This more rapid turnover means fresher goods, more variety of goods, less relative carryover of goods to another season.

2. Larger volume means greater buying power with frequently better terms and more goods bought in car lots, so less transportation costs.

3. Probably the most serious problem of the small volume company is in relative expense. A glance at Figure II brings out the fact that the companies in Group I have averaged year after year $2\frac{1}{2}$ to 6¢ greater expense per dollar of sales than the general average of the whole group of companies.

Note too that the greater relative gains of the large volume companies have been made on lower average trading margins.

What then is the answer? Some small volume companies are answering the question themselves, through more grinding and other service; another answer is in gradually expanding their merchandise lines. Still another answer is seen in the absorption of smaller companies by larger farmer owned neighbors; e.g., Delaware bought Radnor, Loudonville absorbed Lakeville, Okolona bought Elery.

The Operation of Several Plants by One Company

The references just made to companies which operate two or more plants each calls up that general question. Our 1937-38 study covers in Group V 28 companies operating a total of 73 plants. They range from 20 companies operating two plants each to four operating 5 plants each. Is this situation merely the continuance of an unfortunate error, or is it economically sound?

In our first study (1928-29) we had 14 companies of this type operating together 33 plants. The average volume per plant was about $125,000 corresponding to the companies of Group II. The total expense for the companies operating several plants was 7.4¢ per dollar of sales, - considerably below the 9.2¢ ratio of Group II, and below even the 8.2¢ of Group III which had a volume per plant of $183,000. On the other hand it was above the 6.1¢ ratio of Group IV. This would indicate as one would expect that if a company operating two or more plants could handle all that business through one plant it could handle it at less expense, but if the convenience and delivery expense of patrons requires two or more plants, these several plants can be operated at less expense under one management than under separate managements.

One would expect that volume would add to buying power; that trucks can be used in spare time to transfer goods from plant to plant at a cost certainly below "less than car lot" rates; that part of the interplant trucking would be incidental to trips of delivery to patrons; that administrative overhead does not increase proportionally as plants are added. In other words, there are some advantages in group management aside from expense savings, and it is obvious that there should be savings.

Our best evidence regarding comparative expense came through a mere coincidence in averages in the 1936-37 data. It happened that the average volume per plant for the 28 companies operating two or more plants each differed from the average volume of the 122 companies operating one plant each by less than $1000. The expense per dollar of sales was as follows:

	Operating Expense	Total Expense
Companies operating one plant each	5.2¢	6.3¢
Companies operating two or more plants each	4.9¢	5.8¢

On the average volume per plant of $190,000, this meant a saving in expense of $950 per plant through operating several plants under one management.

More Merchandise Lines

The country elevator started as a grain handling institution - a point of assembly for grain to be shipped away. As farmers take them over (as they did in Ohio, mainly 1910-1920, to the number of some 250), the farmer groups had a tendency to use them for supply buying as well. Today in Ohio, while the percentage varies with the volume, quality and price of crops, this merchandise business constitutes from 35 to 45% of the total dollar volume, and furnishes 50 to 75% of the gross trading margins; in fact, in our 1937-38 sample of 36 companies doing a volume of $9,500,000, we find the 46.3% of that volume which is merchandise furnishing 81% of the gross profit.

Many factors contribute to this growing volume and percentage of merchandise sales. Among them are -

The tendency of farmers to feed up more of the grains on the farm and thus have less to ship.

The various control and soil improvement projects which tend to reduce grain sales.

The increasing recognition of the opportunity of the country elevator as a supply buying agency.

The greater stability of volume and of income arising from merchandise sales than from grain handling.

The more even distribution of labor needs through the year.

The attention which consumer cooperation is receiving.

Naturally the companies differ greatly in the extent to which they have had and have used the opportunities for expansion into wider ranges of merchandise lines and of service. A dozen years ago the farmers around Delaware owned two plants, a mill and elevator at Delaware and an elevator at Lewis Center. When the Radnor Farmers Elevator was for sale the Delaware Company bought it. About that time a manufacturing company across the railway tracks from the Delaware plant went out of business, with a resulting opportunity to the farmers' company to buy the building and put in a full line of hardware, farm tools, electrical household equipment, and a line of farm machinery, which was done. Later they bought out a competing plant with a molasses feed mixer, and thus had a new type of service to offer and the opportunity to serve better the farmers who come into town from the east. The final result is that they have expanded from two plants to five and from elevator, flour, feed and fertilizer lines to cover nearly all the farm supplies and a sizable portion of those needed for the farm household.

Not many companies have gone thus far, but dozens of them are on the way, and the rate of progress along this line has been greatly accelerated in the last three years.

The Increasing Expense of Operation

It must not be assumed that this added merchandise and these added lines of service can be handled without added expense. They may very likely not only add to total expense, but even increase the expense in more rapid ratio than they increase volume. This is especially true of service lines such as grinding, mixing, cleaning, trucking and delivery; $3000 taken in for grinding, mixing, cleaning, goes largely into costs of labor, power, repairs, and depreciation of equipment. Many companies take in a thousand dollars for delivery and truck service, and spend in wages of driver, in gasoline, oil, and repairs, and in interest and depreciation, probably $1500 to $2000. In case of one company which collected about $950 for truck service, a conference with bookkeeper and auditor brought out costs of the trucking service totaling above $3000; this left $2000 to be charged to general expense.

To state all this in more general terms the company with $200,000 of grain business might make net profits on a margin of 5¢ on the dollar of sales; if that business were half merchandise, it might require 6½¢ or more margin to make the same profit; if there were in addition $5000 of grinding, trucking, and other service items to add to the $100,000 each of grain and merchandise the expense might easily run to 7½¢ or more on total dollars handled.

It must be recognized on the other hand that a wider range of commodities and services does furnish a more even distribution of labor through the year; further, some companies by constantly building up their volume of business are steadily adding more lines and more service and still holding down expense. In fact, the merchandise lines more than pay their way directly; e.g., in the 1936-37 data from a sample of 45 companies (30% of the whole number) we find $4,617,000 of grain and livestock bringing in a total of $241,293 in gross profits, while $2,826,000 of supply lines brought in $414,341 of gross profit.

It is the service lines that create the added expense, but not always furnish the direct return. The service lines must look in general for their justification, not so much to the direct profit made over costs, but to the better distribution of labor force over the year, the added sales arising from the furnishing of the service, and to the consciousness and reputation of serving its community well whether or not every added line proves a profit maker.

Why Expense of Operation Varies so Widely

One of the perennial puzzles in examining elevator data is the wide differences in expense per dollar of sales. It would be recognized at once that the interest charge of any year depends mainly on the debts created in earlier years; that the depreciation reserve set up depends also on decisions, sometimes rather arbitrary, and in any case partly on how nearly the plant has earlier been written down to going concern value. Likewise reserves or writeoffs for incollectible accounts arise almost entirely from conditions precedent to the particular year. Hence in this part of our discussion we omit depreciation, interest and bad debt items and refer only to operating expense.

To get the picture before us we present Table XII.

Table XII

Range of Operating Expense of the Different Volume Groups,
Farmer Owned Elevators of Ohio 1937-38
In cents per dollar of sales

Group	Lowest	Grinding Income	Other Income	Highest	Grinding Income	Other Income
I	6.40	$ 439	$ 27	15.14	$1,040	$2,279
II	4.05	0	334	13.26	969	38
III	4.65	672	0	12.72	2,234	1,552
IV	2.31	0	452	12.38	4,869	6,676
V	3.25	3,359	1,548	12.26	1,327	12

Expense of operation should vary and might legitimately vary widely. Aside from the volume of business already discussed there are several other factors:

1. Handling a grain business creates far less expense than handling a similar volume of merchandise.

2. The receipts from grinding, trucking, mixing, and probably other services go largely directly to the expense created by those services.

3. The system of bookkeeping makes considerable difference. E.g., if $2000 is taken in for grinding, and the power for running the grinder costs $900, one company credits grinding $2000 and leaves the $900 as part of the power bill. Another company credits grinding with the $1100 left from grinding receipts after paying the bill for grinder power. Trucking receipts and expenses are even more likely to vary in their methods of getting into the books.

4. Some companies pay far more liberal wages than others. While for the validity of comparisons one might wish a more uniform method followed, yet it is not the variations in ratios of expense inherent in these factors which cause anxiety. E.g., in Group IV in the table, the low company has 80% or more of its business in grain shipped out of the community; it does no grinding - in fact, performs almost no service outside its handling of grain and an extremely limited merchandise line. The high expense company had a considerably lower total volume, that volume except for a few cars of wheat entirely merchandise lines; its $4800 of grinding added $2500 to wages and probably $1300 - $1500 to power bills; its $5200 of trucking cost $2520 in wages and licenses besides repairs, and operating expense of three trucks. The machinery service income had a direct expense of $1200 for wages. Here the differences are largely to be expected.

In other cases the reason for the difference is not apparent. In Group I, one could assume that the whole grinding and other income created equal expense, add the $3319 to the expense of the low company and still be far from the 15¢ per dollar of sales shown by the high expense company; and similarly for dozens of companies shown in detail in our records.

Among the factors involved in these latter differences are:

1. Inefficient utilization of labor force.
2. Poor equipment and/or poorly arranged plant.
3. Seasonal peaks and hollows in business - which generally could be materially reduced by widening the range of goods handled.

Certainly one can neither be sure of efficiency simply because a given company in any group has a lower than average expense ratio for the group, nor of inefficiency if the expense ratio is unduly high. This much can be said, however. Any board of directors should compare their expense ratio with that of other similar companies. If high, they should insist on knowing why and whether it is inherent in the service offered. If low, why? Can we keep it that way?

Making the Company Wholly Cooperative

Nearly every farmer owned elevator company in Ohio was organized in the period 1915-20 or earlier. Cooperative principles had not as yet been well worked out; cooperative law waited for its definite expression to the Federal Capper Volstead Law of 1922, and the Ohio Cooperative Marketing Act of 1923.

The Capper Volstead Law (whose requirements must be met if the company is to escape Federal income tax or is to borrow from the Bank for Cooperatives) requires (1) that the organization be made up of agricultural producers, (2) that it be operated for the mutual benefit of the members as producers (i.e., distribute earnings on a patronage basis), (3) that it deal in products of non-members to an amount no greater than that handled for members, and (4) that it conform to one or both of the following:

> No member of the association shall have more than one vote; or
> Dividend on stock shall not exceed 8% per annum.

The Ohio law makes the first three of these requirements, and definitely limits dividends to 8% per annum; it permits only one vote per member in membership associations, but is silent as to voting rights of stockholders.

Some of the farmer elevator companies have been fully cooperative from the beginning; nearly all of them limit the vote to one vote per member; many - probably most of them now - pay part of their earnings as a patronage dividend. Few pay more than 8% on stock and 4% to 6% are far more common than 8%.

The requirements that no more business be handled with non-members than with members is for several companies a requirement impossible to meet at once. Some companies have reduced the par value of their stock to $25 or even $10 per share, and also are giving non-member patrons a patronage dividend credit toward purchase of shares; thus they rapidly approach the meeting of the requirement.

Most companies had from their organization the provision that patronage dividends would be paid; undercapitalization plus the debt arising from the 1920-21 price crash forced them for years to keep earnings in the company. In recent years most companies are paying patronage dividends at least to stockholders, and the number paying to all patrons is rapidly increasing and now considerably exceeds 50% of the whole number.

Cooperation of the Companies with Each Other

Another question of interest is, Do these companies cooperate with each other?

Ten or twelve years ago the answer would have been "Very little." In 1926 the Ohio Equity Exchange Company at Lima was organized as a central agency through which the farmer elevators, especially those of Equity origin, could sell their grain and buy their feed, coal, fertilizer and other farm supplies. Some forty companies do a considerable part of their wholesale selling or buying through this agency.

Three years later, in 1929, another group of companies formed the Ohio Farmers Grain and Supply Association at Fostoria with objectives similar to those described above. Here too is a steadily growing volume of centralized buying and selling. The dissolution of the Farmers National Grain Corporation led this organization to lease the Fostoria Terminal Elevator, and again operate as an outlet for Ohio grain - a service which for some years it had turned over to the National.

The centralized buying of supplies is a type of cooperation which all elevator managements approve in principle, but most managements seem to find it difficult to put into practice. While no accurate statistics are available to answer the question definitely, one can hardly estimate the centralized buying at more than 12% to 15% of the supplies handled by the local farmer elevators of the state. Granting a high degree of accomplishment to the two agencies, there is obviously a long way still to go before the locals are utilizing these agencies as they might and giving to them the consolidated buying power which could double and treble their usefulness.